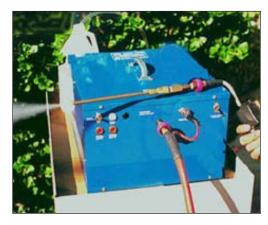


Do you perform parts cleaning, degreasing or surface cleaning?

Would you like to improve this process in the following areas?

- Meeting environmental compliance regulations -- Reduce the amount of hazardous waste and air emission generated. Applicable regulatory areas include RCRA and VOC NAAQS.
- *Improving workers' safety and health* -- Reduce exposure to solvents.
- *Increasing productivity* -- Reduce cleaning times by 70%.
- *Saving Money* -- Reduce operational costs due to the elimination of hazardous waste management and disposal compliance requirements.



Mini-Max portable steam cleaning system

Traditionally hazardous solvents have been used in a large number of parts cleaning applications. Use of hazardous solvents can have many adverse environmental effects including hazardous waste generation and air emissions. A hand-held steam cleaning system such as the Mini-Max can be used in many processes to replace solvents. The technology removes oil, grease, and dirt by using high temperature steam and a non-hazardous cleaning solution. The Mini-Max system is being used successfully at several Navy installations. This equipment is available through GSA and the Navy Pollution Prevention Equipment Program.

How can you achieve these improvements?

Implement the Mini-Max Portable Steam Cleaning System

How does this equipment work?

This system removes oil, grease, and dirt using high temperature steam and a non-hazardous cleaning solution.

How will this eqipment save you money?

The equipment pays for itself within a year. Cost to implement is \$1,500 to \$3,500.

Typical Process Flow Diagram PROCESS NAMES Degreasing Surface Cleaning Parts Cleaning Parts Cleaning

How can this technology eliminate or reduce pollution?

When implemented, this technology can eliminate the use of harmful solvents. Implementation will result in the following pollution reductions:

- Waste Solvent Disposal as Hazardous Waste.
- Air Emissions Related to Solvent Use.

Which shops can benefit most from this technology?

This technology can be used in any process that requires the removal of oil, grease, and dirt. Typical shops include:

- Automotive Maintenance and Repair
- Mechanical Component Maintenance and Repair
- Electronic Circuit Board Maintenance and Repair
- Armory Weapons Maintenance

Take action: How can you implement this technology?

- Activity Shop & Work Center Personnel. If you work at an activity, contact your Pollution Prevention Program Manager. The P2 Program Manager can provide more information and conduct a more detailed analysis, and may be able to provide this equipment at no cost to a Shop or Work Center.
- Activity Pollution Prevention Manager. Request funding for this technology through the Navy P2 Equipment Program. Depending on the application, the Environmental Requirements Cookbook may contain project submission information for annual budget submissions to your major claimant.
- **For Additional Technical Information**. More information about this technology can be found in the Joint Service P2 Opportunity Handbook Datasheet No. 8_I_11 (Web: http://p2library.nfesc.navy.mil/ P2 Opportunity Handbook/8-I-11.html).

Achieving Environmental Compliance Through Pollution Prevention

Everyday the Navy faces the challenge of operating and maintaining the fleet while complying with environmental regulations. This burden can be reduced by implementing pollution prevention technologies and methods to reduce compliance requirements. This Fact Sheet is one in a series designed to encourage activities to implement pollution prevention technologies and methods. The overall goal of this series is to promote sustained environmental compliance at the lowest life-cycle cost.

For additional information, contact:

Program POC:

(805) 982-5318, DSN: 551-5318

E-mail: Fact.Sheet.ProgramPOC@nfesc.navy.mil

Technical POC:

(805) 982-3425, DSN: 551-3425

